

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF NEW YORK

UNITED STATES OF AMERICA)	Criminal No. 1:19-CR-00156 (MAD)
)	
v.)	
)	
XIAOQING ZHENG,)	
)	
Defendant.)	

UNITED STATES' TRIAL MEMORANDUM

I. STATEMENT OF THE CASE

A. Jury selection is scheduled to commence at the discretion of United States District Judge Mae A. D'Agostino on September 7, 2021 in Albany, New York.

B. Defendant Xiaoqing Zheng is released on conditions pending trial.

C. Jury trial has not been waived.

D. The estimated duration of trial is approximately 2 to 3 weeks.

E. The Superseding Indictment charges the defendant in twelve counts of a fourteen-count indictment. The charges particular to the defendant are: one count of Conspiracy to Commit Economic Espionage, in violation of Title 18, United States Code, Section 1831(a)(5); one count of Conspiracy to Commit Theft of Trade Secrets, in violation of Title 18, United States Code, Section 1832(a)(5); four counts of Economic Espionage, in violation of Title 18, United States Code, Sections 1831(a)(1) or (2); five counts of Theft of Trade Secrets, in violation of Title 18, United States Code, Sections 1832(a)(1), (2) or (3); and one count of False Statement or Entries, in violation of Title 18, United States Code, Section 1001(a)(2).

F. Expert Witnesses

- (1) The government plans to offer the expert testimony of FBI Computer Scientist Roderick Link. Mr. Link is expected to testify about his findings concerning the forensic examinations of a Dell desktop computer and an Apple iPhone smartphone seized by law enforcement during the August 1, 2018 search of the defendant's Niskayuna, New York residence. Mr. Link's findings of certain e-mails, e-mail attachments, WeChat messages, etc., as well as his CV, have been previously disclosed to counsel.
- (2) The government plans to offer the expert testimony (both educational and opinion) of General Electric (GE) mechanical engineer Sean Feeny. Mr. Feeny will testify about what a turbine is, how steam and gas turbines function, the role a turbine plays in the generation of electricity, the various models and sizes of turbines, various key parts used within a turbine, etc. Mr. Feeny will also opine that certain electronic files having to do with *turbine seals and turbine seal technology* belong to GE; contain GE trade secret information; are important to GE's turbine business, and have economic value to GE, that is, their loss would likely cause economic harm to GE, and economic gain to a competitor, if said files were disclosed to a competitor. Mr. Feeny's CV, along with FBI summaries of interviews with Mr. Feeny have been previously disclosed to counsel.
- (3) The government plans to offer the expert testimony (both educational and opinion) of General Electric (GE) mechanical engineer John Intile. Mr. Intile will testify about what a turbine is, how steam and gas turbines function, the role a turbine plays in the generation of electricity, the various models and sizes of turbines,

various key parts used within a turbine, etc. Mr. Intile will also opine that certain electronic files having to do *with turbine blades, turbine blade technologies, combustion chamber parts and systems, and combustion chamber systems technologies* belong to GE; contain GE trade secret information; are important to GE's turbine business, and have economic value to GE, that is, their loss would likely cause economic harm to GE, and economic gain to a competitor, if said files were disclosed to a competitor. Mr. Intile's CV, along with FBI summaries of interviews with Mr. Intile have been previously disclosed to counsel.

(4) The government plans to offer the expert testimony (both educational and opinion) of James Mulvenon, Ph.D. Dr. Mulvenon will testify in three areas:

- a. about Chinese Talent Recruitment Programs ("Talent Programs") used by the government of China (at the national, provincial and municipal levels) to recruit highly skilled individuals to fill technical jobs that drive innovation and growth in China's economy. Dr. Mulvenon will further explain how various Talent Programs recruit highly skilled individuals from around the globe, and the incentives offered to said individuals to work in industry and academic organizations supporting key areas deemed by the Chinese government as critical to China's development. Dr. Mulvenon's testimony will also include how the "Recruitment Program of Global Experts" (also known as the "Thousand Talents Program") works by recruiting individuals from Western universities, research centers, and private companies to boost China's national capabilities in the science and technology fields, and to move China forward as an innovative nation;
- b. the national economic development plans used by the government of China (at the national level) to guide China towards long-term economic prosperity. Dr. Mulvenon will further explain how the Thirteenth Five-Year Plan (covering 2016-2020) emphasizes higher quality economic growth through innovation, especially in certain fields like aviation, biopharmaceuticals, and robotics. Dr. Mulvenon will also explain the state of China's turbine technology, and how China would benefit from updating its turbine-related infrastructure; and
- c. the relationship between the government of the People's Republic of China and the following entities:

- i. Shenyang Aeroengine Research Institute (中国航发沈阳发动机研究所)
- ii. Shenyang Aerospace University (沈阳航空航天大学)
- iii. Huaihai Institute of Technology (淮海工学院机械工程学院)
- iv. Liaoning Tianyi Aviation Science and Technology Co., Ltd. (辽宁天一航空科技有限公司)
- v. Nanjing Tianyi Aviation Science and Technology Co. Ltd. (南京天一航空科技有限公司)

Dr. Mulvenon will further offer expert opinion testimony that Shenyang Aeroengine Research Institute, Shenyang Aerospace University, and Huaihai Institute of Technology are instrumentalities of the government of the People's Republic of China. Dr. Mulvenon will also offer expert opinion testimony that LTAT and NTAT are subject to administrative and regulatory oversight by Chinese government offices that control the Chinese aviation and aerospace defense-industrial base. A copy of Dr. Mulvenon's Expert Report, dated April 18, 2021, and his CV have been previously disclosed to counsel.

G. Other potential witnesses:

- (1) GE employee Chris Babie
- (2) FBI Special Agent Tim Bertrand
- (3) GE employee Tran Che
- (4) FBI Special Agent Mary Claypool
- (5) FBI Linguist Jenny Guo
- (6) GE employee Brian Gutknecht
- (7) GE employee Luke Hilton
- (8) Retired FBI Special Agent Gary Hoover
- (9) GE employee Rebecca Kaj
- (10) FBI Special Agent MD McDonald
- (11) Dr. Murat Ozmusul, PhD
- (12) FBI Special Agent Josh Parker
- (13) HSI Special Agent Alex Segura
- (14) GE employee Elizabeth Sise-Moore
- (15) GE employee Frank Wood
- (16) FBI Linguist Zhirong Yang

During the course of preparing for trial, the government may come across other potential witnesses. Our final witness list will be submitted prior to the commencement of trial.

II. STATEMENT OF THE FACTS

Background on the Defendant, Dr. Xiaoqing Zheng, PhD:

The defendant is a United States citizen of Chinese descent. He has a bachelor's degree, master's degree, and a doctoral degree, all in Aeronautical Propulsion and Thermal Engineering, and all from Northwestern Polytechnic University in Xi'an, China. From about early 2008 to about the summer of 2018, the defendant was employed with the General Electric Company's Power business in Schenectady, New York. The defendant worked for GE as an engineer specializing in turbine seals and turbine sealing technologies.

GE Employed a Variety of Physical and Data Security Measures to Protect its Intellectual Property:

During the 2016-2018 time frame, GE employed a number of measures, such as perimeter fencing, manned entry points, employee and visitor badging, etc. to ensure the physical security of its campuses, to include GE Power's campus in Schenectady. During the same period of time, GE employed a number of data security measures, such as requiring its employees to sign Employee Innovation and Proprietary Information Agreements, issuing directives and policy statements concerning rules about protecting GE's intellectual property and trade secrets, prohibiting the use of personal e-mail accounts to conduct GE business, and controlling access to sensitive electronic files.

GE Maintained a Conflict of Interest Policy:

During the 2016-2018 timeframe, GE also had a conflict of interest policy in place, and an internal office to opine on potential conflicts. On January 25, 2016, the defendant submitted a

conflict disclosure form to GE's conflicts office. In the form, the defendant reported that he and his "brothers in China" had started a "small company in China" that was in the business of being a "parts supplier for civil aviation engines". The defendant said that his Chinese company was not yet operating, but that the plan was "to become a supplier of pipe joints, bearing oil seals that might be drawn on my prior experience with another company I worked 8 years ago before I joined GE". On November 9, 2016, GE sent the defendant an e-mail and advised him that on the basis of the information that he provided, there would not be a conflict with his GE employment. The e-mail also warned the defendant to submit another conflict of interest form in the event that his situation or circumstances changed. The defendant never submitted a future conflict disclosure form.

Genesis of the Investigation:

In about November, 2017, agents from the FBI's field office in Cincinnati, Ohio were working a trade secret theft investigation that was unrelated to the pending investigation / prosecution of the defendant. During the course of the Cincinnati agents' investigation, they came across information on the publicly available website run by the Jiangsu Province Nanjing University of Aeronautics and Astronautics (NUAA) College of Energy and Power Engineering which had a link that showed the defendant giving a presentation at NUAA. On the NUAA website, the defendant was identified as being selected to the National "Thousand Talents Program" in 2012. Through routine database checks, the agents in Cincinnati were able to determine that the defendant was living in Niskayuna, New York, and was a then-current employee of General Electric.

Shortly after discovering the information relating to the defendant on NUAA's website, the agents in Cincinnati passed their findings on to GE Power Cyber Security Manager Kevin Cearlock and FBI Albany Special Agent Joshua Parker.

In early 2018, Agent Parker either met with, or spoke with, employees of GE's insider threat team to discuss the defendant and whether GE had any indications that the defendant may have been either violating the law, or violating GE's internal rules and regulations. Through communications with GE's insider threat team, Agent Parker learned a couple of things. First, that in about 2014, GE detected what it deemed to be an unusual movement by the defendant of thousands of electronic files from the defendant's GE-issued computer to a personally owned computer of the defendant. GE was unable to assess what files were actually moved, and whether the files belonged to GE or were personal files belonging to the defendant. The second thing that Agent Parker learned was that the defendant, around the times in 2018 that Agent Parker was communicating with the insider threat team, had approximately 400 "Axcrypt"¹ files on his GE-issued desktop computer. The 400 Axcrypt files were notable to the insider threat team because Axcrypt was not a program that GE regularly used, and because GE did not believe that the defendant had a need to use the Axcrypt program as part of his normal duties. Because GE did not have the Axcrypt password(s) for the 400 files that the defendant had encrypted, GE had no way of seeing the contents of the files to assess whether they did, or did not, contain GE materials.

In an effort to try and learn more about what the defendant was doing with Axcrypt files on his GE-issued desktop computer, members of the insider threat team covertly installed, on or about June 11, 2018, a software monitoring program onto the defendant's GE-issued desktop computer that would lie dormant until someone using the aforementioned computer began using the Axcrypt program. Once use of the Axcrypt program was detected on the defendant's GE-issued desktop computer, the monitoring program covertly recorded what was happening on the

¹ Axcrypt is a software program that allows the user to encrypt electronic folders and files.

computer's screen(s). The software monitoring program installed by GE's insider threat team laid dormant until July 5, 2018 when it detected Axcrypt use on the defendant's GE-issued desktop computer.

Once activated on July 5, 2018, the software monitoring program recorded the defendant as he encrypted, via the Axcrypt program, approximately 40 electronic files (a mix of "MatLab" and Excel files) belonging to GE. The aforementioned files contained calculations relating to sealing and optimizing turbine technology – information that GE considered to be proprietary and secret. The software monitoring program also captured the defendant as he moved the aforementioned now-encrypted "MatLab" and Excel files and hid them inside of the digital / binary code of an otherwise innocuous looking digital picture of a sunset (dawn.JPG). Below is the digital picture:



The process of hiding electronic files within the code of another electronic file is known as "steganography". Finally, the software monitoring program captured the defendant as he used his ge.com work e-mail account to e-mail the attachment dawn.JPG (that contained GE's "MatLab"

and Excel files hidden within the code of the picture) to his personal Hotmail e-mail account xiaoqing_zheng@hotmail.com. In the subject line of the e-mail the defendant sent to himself, he wrote “Nice view to keep”.

Agents with FBI Albany Apply for Various Search Warrants:

In the day or two after the software monitoring program captured the defendant (i) using steganography on July 5, 2018 to hide GE’s “MatLab” and Excel files, and (ii) e-mailing those files to himself in an attached digital photograph via his Hotmail account, the defendant flew from New York to China. The defendant remained in China until he flew back to New York on July 31, 2018.

While the defendant was in China, FBI agents started working on a search warrant application that sought a search warrant to search the defendant’s Niskayuna, New York residence and any electronic devices found therein. While working on the search warrant application, agents learned a variety of things about the defendant, to include that the defendant (i) had a PhD in engineering, (ii) had been working for GE’s Power division in Schenectady, New York since 2008, (iii) specialized in turbine seals and turbine sealing technology, (iv) was the owner of a Chinese parts supplier company called Nanjing Tianyi Aeronautical Technology, Ltd (NTAT) or Tianyi Aviation Technology Company, located in Nanjing, China, (v) was the general manager of a separate Chinese company called Lioning Tianyi Aviation Technology Co Ltd. (LTAT) that also was some kind of parts supplier, and (vi) was a 2012 selectee into the “Thousand Talents Program”.

Agents also learned that the website for the defendant’s Tianyi Aviation Technology Company had information that described how the company worked on developing advanced turbine sealing technology – the same type of turbine sealing technology that the defendant worked on in his capacity as a sealing engineer for GE.

On July 31, 2018, the Honorable Christian F. Hummel, United States Magistrate Judge, Northern District of New York signed a search warrant that authorized agents to search “the premises / residence located at 8 Cephalonia Drive, Niskayuna, NY and any computers, cellular telephones, and computer media therein.” Per the search warrant, agents were authorized to search for, and seize, evidence of violations of 18 U.S.C. §§ 1832(a)(1), (a)(2), (a)(4) & (a)(5) which generally proscribe the stealing and downloading of trade secrets, along with attempting or conspiring to do the same.

On August 2, 2018, agents applied to Judge Hummel for three additional search warrants: (i) an additional warrant to search the defendant’s Niskayuna residence for some business cards and publications, (ii) a warrant to search the defendant’s Samonsite suitcase which had gotten lost on the defendant’s return flight from China to Albany, and (iii) a warrant for the defendant’s Hotmail e-mail account xiaoqing_zheng@ hotmail.com. On August 2, 2018, Judge Hummel signed the requested search warrants which authorized agents to search for, and seize, evidence of violations of 18 U.S.C. §§ 1832(a)(1), (a)(2), (a)(4) & (a)(5).

The August 1, 2018 Execution of the Search of the Defendant’s Niskayuna, New York Residence, and the August 1, 2018 Interview of the Defendant:

At approximately 6:04 a.m. on Wednesday, August 1, 2018, agents with FBI Albany knocked on the front door of the defendant’s Niskayuna residence as they began the execution of the residence search warrant. FBI agents Joshua Parker, MD McDonald, and Gary Hoover were some of the first agents to enter the defendant’s residence through the front door. Shortly after the agents entered the residence, the defendant, who was upstairs on the residence’s second floor, came downstairs.

The defendant's residence was a sizeable residence with multiple bedrooms, living areas, a home office, a kitchen, and a large finished basement. The search lasted until approximately 1:39 p.m.; the relatively long search timeframe was due primarily to the large size of the residence; the high volume of documents, files, and electronic items; and the fact that some items inside of the residence were written in Mandarin.

At approximately 6:09 a.m., Agents McDonald and Hoover sought to interview the defendant while the search was ongoing. The defendant was asked if he would go to the residence's kitchen and have a seat. The defendant agreed. The kitchen was selected because it was quiet and was the room least likely to have any items that would fall within the scope of the search warrant. The defendant's kitchen was fairly large and had a wooden table with approximately six chairs that were positioned at the edge of the kitchen as the kitchen opened up into the residence's living room. The interview was audio recorded, lasted over five hours, and concluded around 11:51 a.m.²

During the interview, the defendant made a variety of statements about his knowledge of GE's efforts to protect its intellectual property and trade secrets, his involvement in the July 5, 2018 e-mail described above, whether he had previously engaged in similar conduct, and his involvement in LTAT and NTAT.

Seized pursuant to the residence search were multiple electronic items along with a variety documents, publications, and business cards. Two electronic devices that were seized (a Dell desktop computer and an Apple iPhone X) were forensically examined and found to contain either

² At approximately 11:15 a.m., while the agents and the defendant were still inside of the residence, the defendant was placed under arrest. The defendant was then escorted out of his residence, placed into one of the agent's vehicles, and transported to FBI Albany's Field Office in the City of Albany. The defendant and the agents arrived at the FBI's Albany Field Office around 11:48 a.m.

suspected stolen GE trade secrets, e-mails, or WeChat³ communications between the defendant and his alleged co-conspirator, Mr. Zhaoxi Zhang, or the defendant's business associate Xiancai Zhou. Also recovered from the search were various business cards indicating that the defendant was an employee or principal of the Chinese company Liaoning Tianyi Avi Tech Co., Ltd ("LTAT") located in Liaoning, China, and the president of the Chinese company Nanjing Tianyi Avi Tech Co. Ltd. ("NTAT") located in Nanjing, China. Also seized from the defendant's residence was a publication, written in Chinese. The publication has been translated to a title of "Ten Benefits of High and New Tech Enterprises Accreditation Requirements and Procedures" published in September, 2017 by the Liaoyang Science and Technology Bureau. The publication details how accredited companies can get various financial breaks, including tax reductions, cash rewards, and loans if the companies work on certain technologies considered important to the Chinese government.

Agents also seized a total of \$50,000.00 in U.S. currency (\$20,000 of which was found hidden in a wall in the basement, and \$30,000 of which was found in a travel bag in a closet in the residence).

The August 2, 2018 Search of the Defendant's Suitcase:

One of the suitcases belonging to the defendant was lost by the airlines during the defendant's July 31, 2018 flights from China to New York. The lost suitcase eventually made its way to the Albany County Airport, and on August 2, 2018 a search warrant was executed for the contents of the suitcase. A variety of documents were seized from the suitcase, including the

³ WeChat is mobile text and voice messaging application / platform used by millions of individuals in China. Through the WeChat application, users can communicate via text, exchange attachments containing documents, photographs, etc., and can leave voice messages.

defendant's red Thousand Talents Program passport (which indicated his membership in the program). One of the government's experts, Dr. James Mulvenon, PhD, will explain to the jury how the Thousand Talents Program benefits both individual program members, and the federal, provincial, or local governments who sponsor the program (individuals receive grants and/or research funding for knowledge and/or property they bring to China in particularized science and industrial fields). Below is a picture of the defendant's Thousand Talents passport:



III. LAW RELATED TO THE CHARGES IN THE CASE

As set forth in the government's proposed jury instructions, the essential elements for each count are relatively straightforward and are primarily based on *Modern Federal Jury Instructions*.

IV. EVIDENTIARY ISSUES

A. Expert Testimony Regarding Computer Forensics, Turbines, Suspected Stolen GE Trade Secrets, Chinese Talent Recruitment Programs, Chinese Economic Development Programs, and Relationships Between the Chinese Government and Various Entities

As described previously, the United States will seek to introduce expert testimony in its case-in-chief concerning: (i) the recovery of certain files, e-mails, communications, etc. from various items that were forensically examined; (ii) what turbines are, how they function, how they are used, critical components, etc., as well as opinions that certain electronic files having to do with *turbine seals, turbine seal technology, turbine blades, turbine blade technologies, combustion chamber parts and systems, and combustion chamber systems technologies* belong to GE; contain GE trade secret information; are important to GE's turbine business, and have economic value to GE, that is, their loss would likely cause economic harm to GE, and economic gain to a competitor, if said files were disclosed to a competitor; and (iii) Chinese Talent Recruitment Programs, economic development plans published by the Chinese government, and relationships and connections between the Chinese government and certain entities and businesses.

Federal Rule of Evidence 702 governs the admissibility of expert testimony and makes clear that the testimony of experts is proper “where it ‘will assist the trier of fact to understand the evidence or to determine a fact in issue.’” *United States v. Aminy*, 15 F.3d 258, 261 (2d Cir. 1994) (quoting Fed.R.Evid. 702). The Rule also governs expert opinion testimony and plainly states that “[t]estimony is admissible under Rule 702, if the subject matter at issue is beyond the common knowledge of the average layman, the witness has sufficient expertise, and the state of the pertinent art or scientific knowledge permits the assertion of a reasonable opinion.” *United States v. Winters*, 729 F.2d 602, 605 (9th Cir. 1984) (citing *McCormick’s Handbook of the Law of Evidence* § 13, at 29-31 (E. Cleary ed., 2d ed. 1972)).

The Supreme Court has addressed the requirements of Rule 702 in two major cases, *Daubert v. Merrell Dow Pharm.*, 509 U.S. 579 (1993), and *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999). Those cases dispensed with the more restrictive “general acceptance” requirement of *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923), requiring instead that the district judge perform a gatekeeping function to ensure that the evidence is “not only relevant, but reliable.” *Daubert*, 509 U.S. at 589. As the Court stated in *Daubert*, the test of reliability is a “flexible” one, and *Daubert*’s list of specific factors neither necessarily nor solely applies to all experts or in every case. *Kumho Tire*, 526 U.S. at 141 (citing *Daubert*, 509 U.S. at 594); *see also United States v. Stafford*, 721 F.3d 380, 393 (6th Cir. 2013) (“District courts have broad latitude in deciding whether to admit expert testimony under *Daubert v. Merrell Dow Pharmaceuticals, Inc.*”) (citations omitted).

In *Kumho Tire*, the Supreme Court declared that “the law grants a district court the same broad latitude when it decides how to determine reliability as it enjoys in respect to its ultimate reliability determination.” *Kumho Tire*, 526 U.S. at 142 (emphasis omitted) (citing *General Electric Co. v. Joiner*, 522 U.S. 136, 143 (1997) (stating that courts of appeals are to apply “abuse of discretion” standard when reviewing district court’s reliability determination)). Thus, the Rule 702 inquiry leaves a trial judge “considerable leeway in deciding...how to go about determining whether particular expert testimony is reliable.” *Kumho Tire*, 526 U.S. at 152; *see also United States v. Majors*, 196 F.3d 1206, 1215 (11th Cir. 1999) (“[District courts] have substantial discretion in deciding how to test an expert’s reliability and whether the expert’s relevant testimony is reliable”) (quoting *Forklifts of St. Louis, Inc. v. Komatsu Forklift, USA, Inc.*, 178 F.3d 1030, 134 (8th Cir. 1999)).

B. Inextricably Intertwined Evidence & Rule 404(b) Evidence to Show Motive, Intent & Plan

The government will seek to introduce, in its case-in-chief, evidence that the defendant was a member of the Chinese Talent Recruitment Program “Thousand Talents” during the time that the defendant is alleged to have committed the crimes alleged in the Superseding Indictment. Evidence of the defendant’s membership in the Thousand Talents plan is admissible as direct evidence of the crimes alleged, that is, evidence that arises “out of the same transaction or series of transactions as the charged offense, [] is inextricably intertwined with the evidence regarding the charged offense” or evidence that “is necessary to complete the story of the crime on trial” – such evidence may be admissible irrespective of Fed. R. Evid. 404(b)(1). *United States v. Kaiser*, 609 F.3d 556, 570 (2d Cir. 2010) (quoting *United States v. Carboni*, 204 F.3d 39, 44 (2d Cir. 2000)); *United States v. Hsu*, 669 F.3d 112, 118 (2d Cir. 2012). For this type of evidence, admissibility should be judged under Rules 401 and 403 without reference to Rule 404(b). *See id.*

Should the Court rule that the above referenced evidence is not direct evidence of the crimes charged, the evidence is still admissible under Fed. R. Evid. 404(b) as evidence of motive, intent, or plan.⁴ Under Rule 404(b), “other acts” evidence is admissible as long as the evidence: (1) is advanced for a proper purpose; (2) is relevant to the crimes for which the defendant is on trial; and (3) has probative value that is not substantially outweighed by any unfair prejudicial effect. *See, e.g., United States v. Guang*, 511 F.3d 110, 121 (2d Cir. 2007); *United States v. Brand*, 467 F.3d 179, 196 (2d Cir. 2006).

⁴ 404(b) notice of the government’s intent to offer evidence of the defendant’s membership in the Thousand Talents plan as evidence of motive, intent, or plan was provided in the government’s May 28, 2021 discovery letter sent to the defense.

The Second Circuit has adopted the “inclusionary” approach to Rule 404(b). Thus, other act evidence “is admissible for any purpose other than to show a defendant's criminal propensity so long as it is not substantially outweighed by the danger of unfair prejudice.” *United States v. Paulino*, 445 F.3d 211, 221 (2d Cir. 2006) (quotations omitted); *see also United States v. Teague*, 93 F.3d 81, 84 (2d Cir. 1996) (providing that proof of state of mind, such as intent, is a “proper purpose” for admission of other acts evidence under Rule 404(b)).

“Prior crimes, wrongs or acts” are admissible for purposes of proving a defendant's intent or knowledge. *See, e.g., United States v. Colon*, 880 F.2d 650 (acknowledging that a plea of not guilty puts a defendant's state of mind in dispute). Where the defendant denies having an intent to engage in the charged criminal activity, as is the case here, he puts intent directly at issue and opens the door to the prosecution's proper use of 404(b) evidence to refute the defendant's claim.

C. Admissions by a Party Opponent Under Federal Rule of Evidence 801(d)(2)(A)

Under Fed. R. Evid. 801(d)(2)(A), a party’s own out-of-court statements offered against the party are party admissions and are not hearsay. *See United States v. Dukagjini*, 326 F.3d 45, 62-63 (2d Cir. 2003). Party admissions are admissible as substantive evidence, subject to the relevancy rules of Fed. R. Evid. 402 and 403. *See Spiegel v. Schulmann*, 604 F.3d 72, 82 (2d Cir. 2010); *see Bostick Oil Co. v. Michelin Tire Corp., Commercial Div.*, 702 F.2d 1207, 1221 (4th Cir. 1983). The government believes that various verbal statements, e-mails, WeChat communications, etc. made by the defendant are admissible as verbal, written, or recorded admissions of the defendant, and that such admissions are highly relevant in showing that the defendant committed the acts alleged in the Superseding Indictment, and with the requisite *mens reas*. Moreover, participating witness’ portions of conversations with the defendant are admissible to render what the defendant said intelligible. *United States v. Sorrentino*, 72 F.3d 294, 298 (2d Cir. 1995).

D. The Use of Transcripts in Connection with the Recorded Interview of the Defendant And with Select Voicemail Messages Recovered from Audio Files Contained within Certain WeChats

With the Court's permission, the government will likely seek to play approximately two hours worth of the August 1, 2018 audio recorded interview of the defendant. The government will likely play select passages of the recording through software that allows the words of the speakers on the recording to appear on a screen in text contemporaneous with the audible words. In the event that the software is not functioning properly, the government will seek to admit GE-28(b) which is a transcript of the August 1, 2018 interview.

The use of transcripts of recordings has been specifically approved by the Second Circuit. *See United States v. Carson*, 464 F.2d 424 (2d Cir. 1972); *United States v. Chiarizio*, 525 F.2d 289 (2d Cir. 1975). The need to identify the speakers is a reason why the jury should be permitted to read a transcript of an audio recording. *United States v. Slake*, 627 F.2d 293 (D.C. Cir. 1980).

If the jury so requests, it is within the discretion of the trial judge to permit the jury to rehear a recording and to utilize the transcripts while the recording is being replayed during deliberation. *United States v. Alfonso*, 552 F.2d 605 (5th Cir. 1977); *United States v. Cioffi*, 493 F.2d 1111 (2d Cir. 1974).

Similarly, the government may seek to play certain audio files recovered from the WeChats obtained in the investigation. Transcripts of the recordings will help the jury identify the speakers.

E. A Transcript of a Foreign Language Conversation or a Translation of a Foreign Language Document May Be Admitted in Evidence Provided That Each Party Agrees to its Accuracy or Has an Opportunity to Submit a Competing Version

So long as the parties agree to the accuracy of a transcript, or are permitted to provide competing versions to the jury, it is proper for a trial court to admit both the tape and the transcript into evidence. *United States v. Carson*, 464 F.2d 424, 436-37 (2d Cir. 1972) (approving procedure

for transcript of English language conversations). "Where the recorded conversation is conducted in a foreign language, an English language transcript may be submitted to permit the jury to understand and evaluate the evidence." *United States v. Ben-Shimon*, 249 F.3d 98, 101 (2d Cir. 2001); *United States v. Bahadar*, 954 F.2d 821,830 (2d Cir. 1992) (where tape of conversation was in Urdu and Punjab, and English translation was made, approving procedure in which informant read his own side of conversation from transcript and AUSA read defendant's side of conversation from transcript); see *id.* at 830-31 ("We see no abuse of discretion in Judge Bartels 'handling of the mostly-foreign tape-recorded evidence; on the contrary, we find it hard to imagine any other proper and effective handling of this evidence."); *United States v. Chalarca*, 95 F.3d 239, 246 (2d Cir. 1996); *United States v. Cruz*, 765 F.2d 1020, 1023 (11th Cir. 1985).

If the defense contests the accuracy of any portion of the offered transcript, it may submit its own version. *Ben-Shimon*, 249 F.3d at 101; *Carson*, 464 F.2d at 436-37.

Translations need not be verbatim, and indeed, idioms and slang should be translated so that they make sense in English. *United States v. Gonzalez*, 365 F.3d 656, 660 (8th Cir. 2004), *cert. granted*, 543 U.S. 1107 (2005) judgment vacated, case remanded for further consideration in light of *United States v. Booker*, 543 U.S. 220 (2005). The Court should consider a jury instruction similar to Seventh Circuit Pattern Criminal Jury Instruction Number 3.15, which advises the jury, in substance, that whether a transcript is an accurate translation is for the jury to decide, and that the jury should consider how and by whom the transcript was made, the knowledge, training and experience of the translator, as well as the nature of the conversation and the reasonableness of it in light of all the evidence in the case. See *United States v. Gutierrez*, 367 F.3d 733, 736 (8th Cir. 2004).

Any qualified person, including a cooperator in the case, or a government translator, if qualified in the language, is capable of making the translation. *United States v. Ben-Shimon*, 249 F.3d at 101 (cooperator); *United States v. White*, 219 F.3d 442, 448-49 (5th Cir. 2000) (FBI agent).

F. Admissibility of Statements of Co-Conspirators Under Federal Rule of Evidence 801(d)(2)(E)

Under Fed. R. Evid. 801(d)(2)(E) certain statements of co-conspirators are exempt from the hearsay rule. The Rule provides that a statement is not hearsay if “offered against an opposing party and . . . was made by the party’s coconspirator during and in furtherance of the conspiracy.” *Id.*; *United States v. Ramirez*, 2021 U.S. Dist. LEXIS 116327 at *37 (S.D.N.Y. Jun. 22, 2021). The *Ramirez* Court succinctly summed up the considerations that make a statement made by a co-conspirator admissible at trial:

To be admissible the court must find by a preponderance of the evidence “(a) that there was a conspiracy, (b) that its members included the declarant and the party against whom the statement is offered, and (c) that the statement was made during the course of and in furtherance of the conspiracy.” *United States v. Gupta*, 747 F.3d 111, 123 (2d Cir. 2014) (quoting *Maldonado-Rivera*, 922 F.3d at 958). “Admissibility depends on the nature of the statement offered—in particular what objective it sought to advance—and whether the defendant was jointly engaged with the declarant in a conspiracy seeking that objective.” *United States v. Russo*, 302 F.3d 37, 46 (2d Cir. 2002). “In determining the existence and membership of the alleged conspiracy, the court must consider the circumstances surrounding the statement, as well as the contents of the alleged coconspirator’s statement itself.” *Gupta*, 747 F.3d at 123. *Id.* at *37-*38.

As the Court is aware, Zhaoxi Zhang is believed to be the defendant’s business partner, in addition to being a member of the conspiracies alleged in Counts One and Two of the Superseding Indictment. Others, to include Xiancai Zhou, are also suspected of being members in the conspiracies charged. The government anticipates presenting at trial various e-mails and / or

WeChat communications from Zhang, Zhou, and others made during the conspiracies alleged, and made in furtherance of the conspiracies alleged.

G. Chain of Custody

An uninterrupted chain of custody is not a prerequisite to admissibility of an exhibit. *United States v. Olson*, 846 F.2d 1103, 1116 (7th Cir. 1988). Gaps in the chain go to the weight of the evidence, not its admissibility. *United States v. Morrison*, 153 F.3d 34, 57 (2d Cir. 1998); *United States v. Hon*, 904 F.2d 803, 809-810 (2d Cir. 1990). “If the trial judge is satisfied that in reasonable probability the evidence has not been altered in any material respect, he may permit its introduction.” *Olson*, 846 F.2d at 1116 (quotation omitted); *see also United States v. Hemmings*, 482 Fed. Appx. 640, 643-44 (2d Cir. 2012) (holding it was not abuse of discretion to admit drugs into where the government did not call the confidential informant who handled drugs as part of the chain of custody and noting that an alleged break in chain of custody for crack cocaine went to weight of evidence, not its admissibility).

“Establishing a chain of custody is one form of proof sufficient to support a finding that the matter in question is what its proponent claims.” *United States v. Mendel*, 746 F.2d 155, 167 (2d Cir. 1984); *United States v. Casamento*, 887 F.2d 1141, 1188 (2d Cir 1989).

Proof of the connection of an exhibit to the defendants may be made by circumstantial evidence. *United States v. Mendel*, 746 F.2d at 167; *United States v. Natale*, 526 F.2d 1160, 1173 (2d Cir. 1975).

H. Admissibility of Self-Authenticating Business Records Under Federal Rules of Evidence 902(11) & 803(6)

During the course of the investigation, the government has obtained various declarations from companies as to certain records maintained by the businesses (*e.g.* Microsoft concerning the

defendant's Hotmail e-mail account; Ken-Tron (a metal wire supplier) concerning purchases made by the defendant and LTAT, etc.) "Fed. R. Evid. 902 provides that certain types of documents are self-authenticating, *i.e.*, they do not require any extrinsic evidence for authentication." *United States v. Pluta*, 176 F.3d 43, 49 (2d Cir. 1999). Rule 902(11), Certified Domestic Records of a Regularly Conducted Activity, describes one such type of self-authenticating documents: "The original or a copy of a domestic record that meets the requirements of Rule 803(6)(A)-(C), as shown by a certification of the custodian or another qualified person that complies with a federal statute or rule prescribed by the Supreme Court." Rule 902(13), Certified Records Generated by an Electronic Process or System, describes another such type of documents: "A record generated by an electronic process or system that produced an accurate result, as shown by a certification of a qualified person that complies with the certification requirements of Rule 902(11) or (12)."

Rule 902(13) was enacted in 2017 and summarized by one district court as follows:

Similar to the provisions on business records in Rules 902(11) and 902(12), Rule 902(13) was added by the Advisory Committee to reduce the "expense and inconvenience of producing a witness to authenticate an item of electronic evidence." Fed. R. Evid. 902 Advisory Committee Notes. To establish authenticity under Rule 902(13), a proponent "must present a certification containing information that would be sufficient to establish authenticity were that information provided by a witness at trial." *Id.* The Advisory Committee Notes indicate that "[t]he Rule specifically allows the authenticity foundation that satisfies Rule 901(b)(9) to be established by a certification rather than the testimony of a live witness." *Id.*

United States v. Bondars, No. 1:16-cr-228, 2018 WL 9755074, at *2 (E.D. Va. Aug. 20, 2018).

A declaration "'that satisfies 28 U.S.C. § 1746' satisfies Rule 902(11)'s certification requirement." *United States v. Hicks*, No. 15-CR-33-A, 2018 WL 1789932, at *3 (W.D.N.Y. April 16, 2018). Section 1746 provides that whenever a sworn declaration is required by federal law,

“such matter may, with like force and effect, be supported, evidenced, established, or proved by the unsworn declaration ... in writing of such person which is subscribed by him, as true under penalty of perjury, and dated, in substantially the following form: ... ‘I declare (or certify, verify, or state) under penalty of perjury that the foregoing is true and correct. Executed on (date). (Signature)’.” 28 U.S.C. § 1746(2).

I. Admissibility of Self-Authenticating Public Records Under Federal Rules of Evidence 803(8), 902(4) and 1005

A public record from the Department of Homeland Security (DHS) showing the dates and times that the defendant has departed the United States, returned to the United States, and via which port of entry, should be admissible without a sponsoring witness under Fed. R. Evid. 803(8), 902(4) and 1005. *See United States v. Zaruskas*, 814 F.3d 509, 519-20 (1st Cir. 2016).

J. Admissibility of a Video Recorded on July 5, 2018 by Computer Monitoring Software Program Installed on the Defendant’s GE-Issued Computer

In the event that the government does not seek to play actual portions of the July 5, 2018 video recording made by the computer monitoring software covertly installed by GE on the defendant’s GE-issued computer, the government may seek to admit screen captures from the recording in an effort to save time. Screen captures from a properly functioning video surveillance system are admissible if properly authenticated under Federal Rule of Evidence 901(b)(9). The government intends to call an individual knowledgeable about how GE’s computer monitoring software program installed on the defendant’s GE-issued computer operated, how it was properly functioning on July 5, 2018, and how the screen captures offered by the government fairly and accurately represent what the system recorded on the dates and times indicated.

K. Presentation of Summary Charts Under Federal Rule of Evidence 1006

The government anticipates presenting summary charts in conjunction with FBI Computer Scientist Roderick Link's testimony detailing on what devices, in what file / folder structures on those devices, and with what passwords, he found various e-mails, attachments, communications, and other electronic files relevant to the investigation. Many of the e-mails which contained suspected stolen GE trade secrets were recovered from electronic sub-folders, within sub-folders, within sub-folders, etc. Examination in open court of the devices would require days of testimony from one witness and would perplex the jury through numerous and repeated references to devices, folder names, file names, file locations, and passwords. The government also anticipates presenting summary charts / slides in conjunction with GE employee Luke Hilton's testimony relating to video screen-captures of the defendant's GE computer on July 5, 2018. The full video is over six hours long but can be summarized by a series of screenshots.

Under Fed. R. Evid. 1006, a party may introduce information by means of a summary exhibit to prove the contents of voluminous documents or records that cannot be conveniently examined by the court. *See id.* Courts allow summary charts to be admitted into evidence when the evidence involves numerous exhibits which are difficult to examine in court without the charts, or the charts are helpful to the jury. *United States v. Stephens*, 779 F.2d 232, 238-39 (5th Cir. 1985); *United States v. Scales*, 594 F.2d 558, 564 (6th Cir. 1979). Summary charts are to be admitted into evidence and go back with the jury during deliberations. *See United States v. White*, 737 F.3d 1121, 1135 (7th Cir. 2013).

L. Presentation of Pedagogical Summaries Under Federal Rule of Evidence 611(a)

The government anticipates presenting testimony from FBI Co-case Agent McDonald who will explain the significance of (i) dates on which the defendant is alleged to have stolen or

transmitted GE trade secret files by either using his ge.com e-mail account to his Hotmail account, or from his Hotmail account to Mr. Zhang's e-mail account (261246466@qq.com); (ii) whether steganography was used, and (iii) why steganography was, or was not, likely used. Agent McDonald is expected to have a pedagogical summary chart that will help explain his testimony as to when, and via what e-mail accounts (and whether steganography was used), the defendant stole and/or transmitted particular GE trade secret files. Under Fed. R. Evid. 611(a), the court has "control over the mode . . . [of] presenting evidence." *Id.* Pedagogical summaries may be used to aid the jury in its understanding of evidence that has been admitted, and in evaluating other evidence. *See White*, 737 F.3d at 1135.

M. Presentation of Witnesses and the Recalling of Government Witnesses to the Stand

It is possible that the two co-case agents in this case, Agents McDonald and Agent Claypool, will testify to multiple facets of the investigation. Pursuant to Fed. R. Evid. 611(a) the government may seek permission to call the aforementioned witness to the stand multiple times in order to facilitate an orderly, efficient, chronological and understandable presentation of the evidence. *See United States v. Jackson*, 549 F.2d 517, 528 (8th Cir. 1977); *United States v. Butera*, 677 F.2d 1376, 1381 (11th Cir. 1982).

V. RECIPROCAL DISCOVERY AND AFFIRMATIVE DEFENSES

The government has requested reciprocal discovery from the defense. To date, it has not received the name of any defense expert(s) and his/her probable line of possible testimony, and the bases for that testimony. To the extent there exists reciprocal discovery to which the government is entitled under Federal Rules of Criminal Procedure 12.1, 12.2, 16(b), or 26.2 that the defense has not produced, the government reserves the right to seek to have such materials excluded at trial. *See United States v. Young*, 248 F.3d 260, 269-70 (4th Cir. 2001).

The defendant has not given notice of his intent to rely on any defense of entrapment, mental incapacity, duress, or alibi. Therefore, to the extent the defendant may attempt to rely on any such defense, the government reserves the right to object and to seek to have the defendant precluded from asserting such defenses.

VI. CONCLUSION

Through this trial memorandum the government has attempted to summarize those principles of law which we believe to be applicable in resolving issues that the Court may face during trial. We respectfully request an opportunity to submit additional legal authority in connection with such other issues as may arise.

Respectfully Submitted,

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